

## TITLE V INDICATOR TEMPLATES

**INDICATOR:** Low birthweight

**DEFINITION:** The percent of live births weighing less than 2,500 grams

**NUMERATOR:** The number of live births weighing less than 2,500 grams, by place of residence, in a calendar year

**DENOMINATOR:** The total number of live births, by place of residence, in a calendar year

**HEALTHY PEOPLE 2000 OBJECTIVE:**

Reduce low birthweight to an incidence of no more than 5 percent of live births. (Baseline: 6.9 percent in 1987) (Objective 14.5)

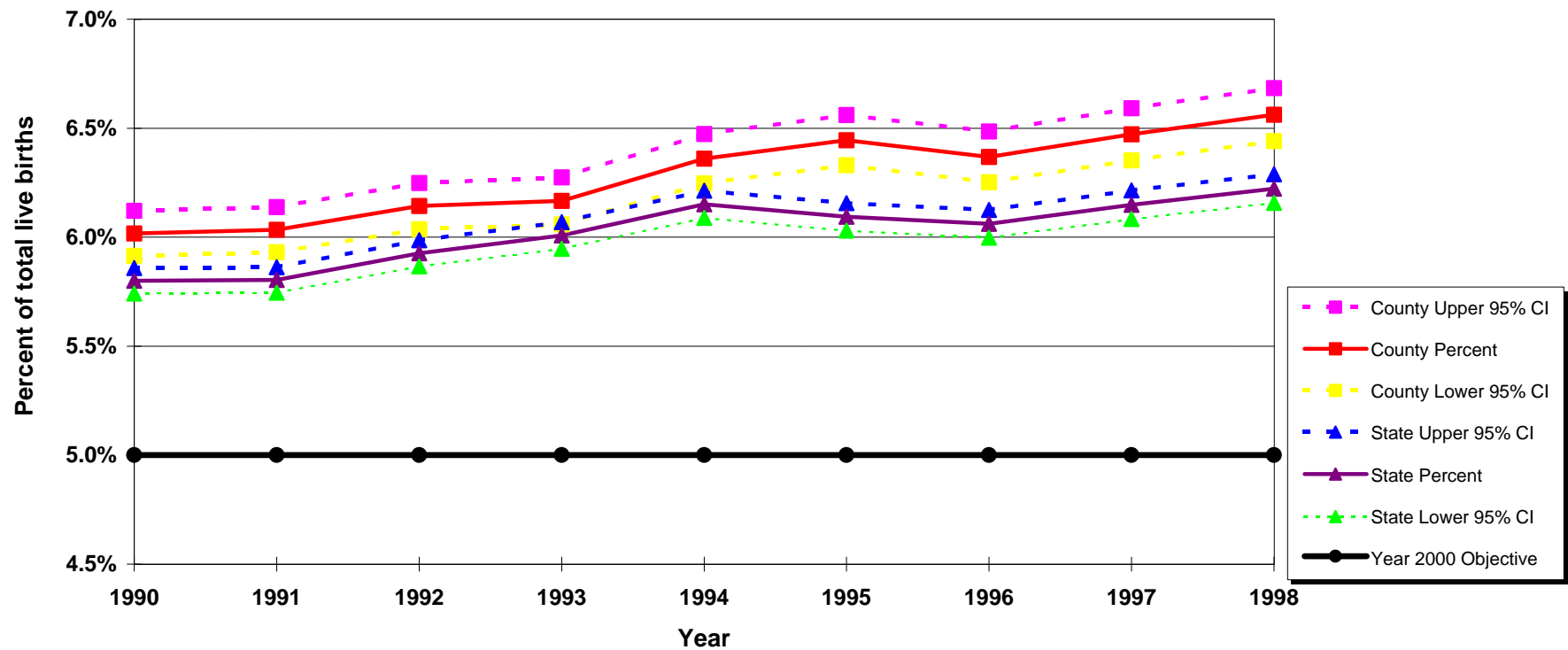
**RISK FACTORS:**

Young or old maternal age; low income; low maternal education level; race/ethnicity (African American, Puerto Rican, Southeast Asian); high parity; short interpregnancy interval; multiple gestation; unintended pregnancy; history of low birthweight; poor reproductive history; intrauterine growth retardation; preterm birth; prior preterm birth; late entry into prenatal care; lack of comprehensive prenatal care; low pre-pregnancy weight; tobacco use during pregnancy; alcohol/substance abuse during pregnancy; low pregnancy weight gain; placenta previa; premature rupture of the membrane; stress during pregnancy; strenuous exertion during pregnancy

	California				LA County				DENOMINATOR: Live Births	
	Low Birthweight		95% Confidence Interval		Low Birthweight		95% Confidence Interval			
Year	Number	Percent	Lower	Upper	Number	Percent	Lower	Upper	California	LA County
1990	35,474	5.80%	5.74%	5.86%	12,283	6.02%	5.91%	6.12%	611,666	204,124
1991	35,359	5.80%	5.75%	5.86%	12,234	6.03%	5.93%	6.14%	609,228	202,737
1992	35,608	5.93%	5.87%	5.99%	12,127	6.14%	6.04%	6.25%	600,838	197,415
1993	35,116	6.01%	5.95%	6.07%	11,698	6.17%	6.06%	6.27%	584,483	189,706
1994	34,876	6.15%	6.09%	6.21%	11,474	6.36%	6.25%	6.47%	567,034	180,394
1995	33,588	6.09%	6.03%	6.16%	11,270	6.45%	6.33%	6.56%	551,226	174,862
1996	32,649	6.06%	6.00%	6.13%	10,761	6.37%	6.25%	6.48%	538,628	168,973
1997	32,232	6.15%	6.08%	6.21%	10,487	6.47%	6.35%	6.59%	524,174	162,036
1998	32,438	6.22%	6.16%	6.29%	10,408	6.56%	6.44%	6.68%	521,265	158,604

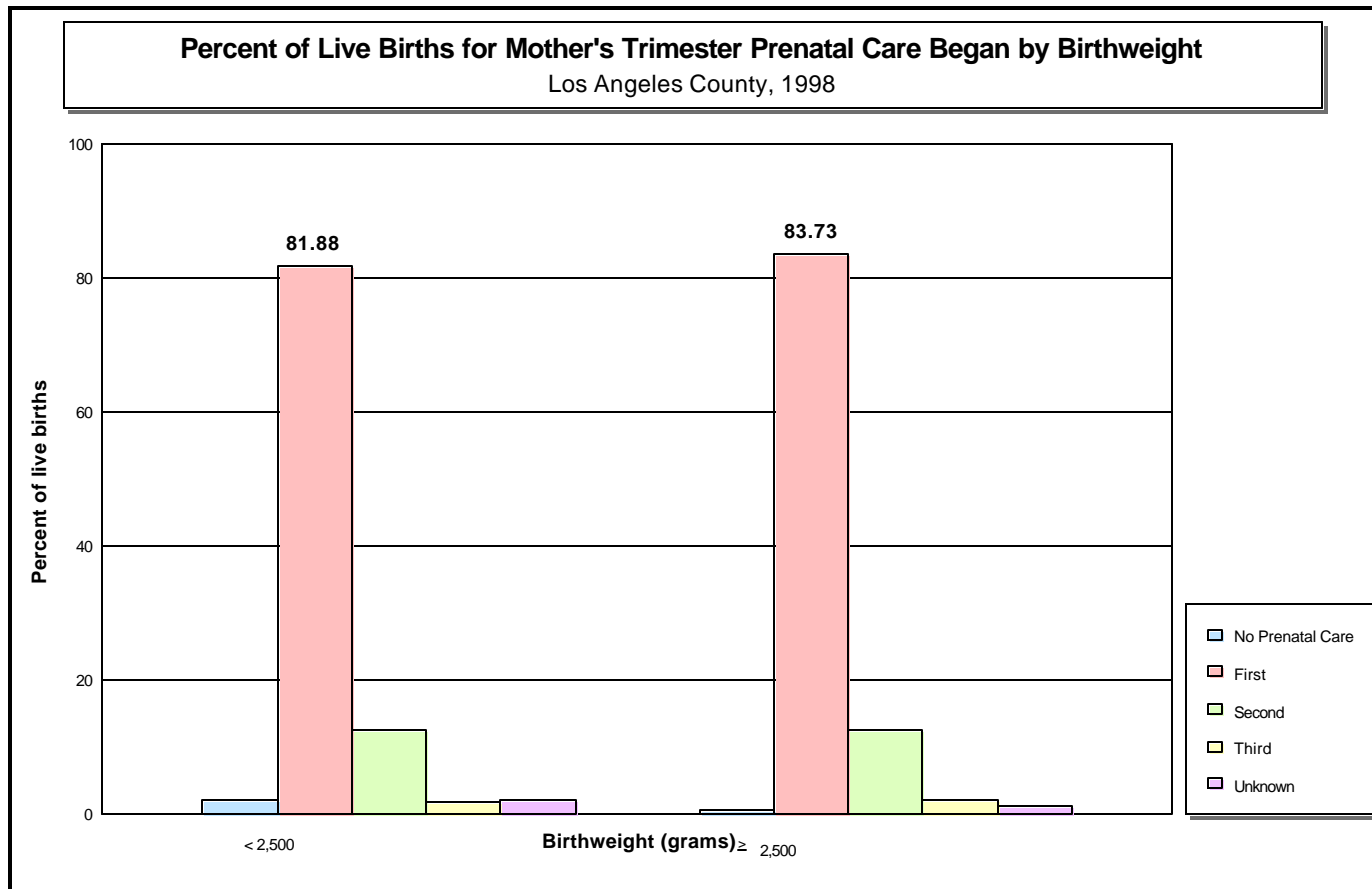
**Source:** 1990-1998 birth records from California Department of Health Services, Center for Health Statistics

## Percent Low Birthweight California vs. Los Angeles County, 1990 - 1998



**Year 2000 Objective:** Reduce low birthweight to an incidence of no more than 5 percent of live births

**Source:** 1990-1998 birth records from California Department of Health Services, Center for Health Statistics

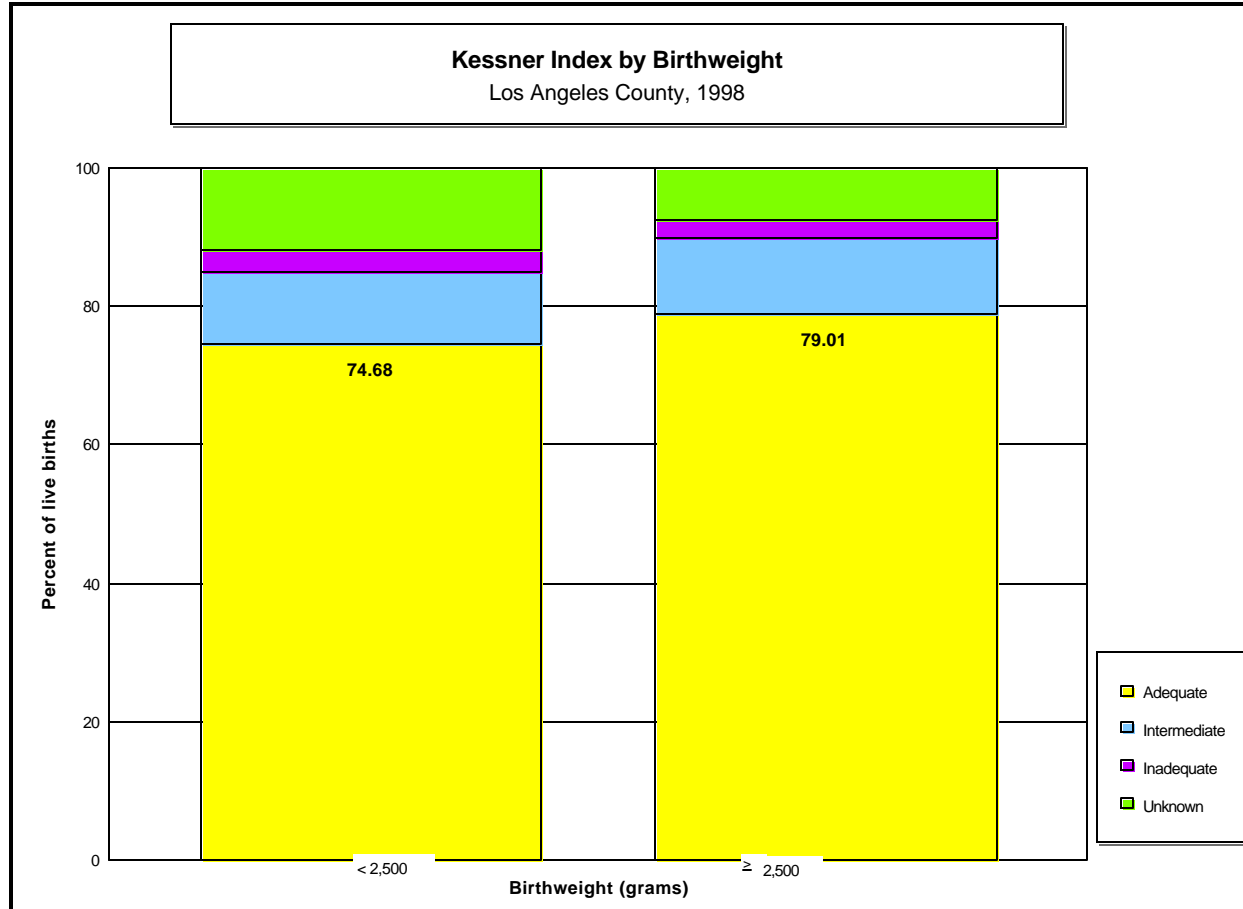


Live Births	Birthweight (grams)			
	< 2,500		≥ 2,500	
	Number	Percent	Number	Percent
No PNC	199	1.91	846	0.57
First	8,522	81.88	124,085	83.73
Second	1,295	12.44	18,295	12.35
Third	190	1.83	3,125	2.11
Unknown	202	1.94	1,843	1.24
Total	10,408	100.00	148,194	100.00

Note: PNC = 'Prenatal Care'

Live births with unknown birthweight were excluded from this analysis.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

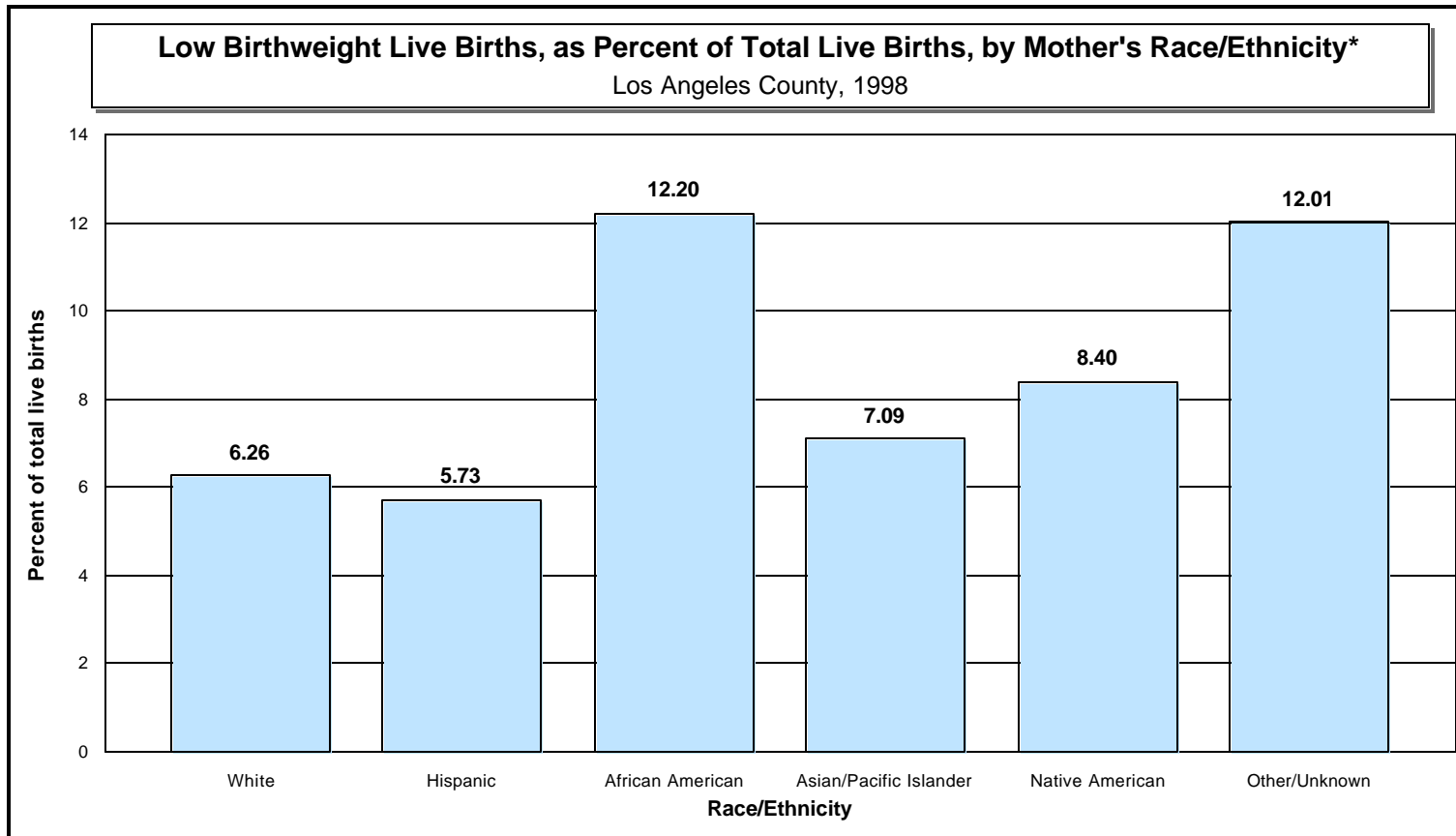


Live Births	Birthweight (grams)			
	< 2,500		≥ 2,500	
	Number	Percent	Number	Percent
Adequate	7,960	76.48	117,082	79.01
Intermediate	1,076	10.34	16,195	10.93
Inadequate	313	3.01	3,869	2.61
Unknown	1,059	10.17	11,048	7.46
Total	10,408	100.00	148,194	100.00

Note: The Kessner Index takes into account three factors: month in which prenatal care began, number of prenatal visits, and length of gestation. This measure excludes the prenatal care experiences of all women whose pregnancies did not result in a live birth.

Live births with unknown birthweight were excluded from this analysis.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics



	Race/Ethnicity											
	White		Hispanic		African American		Asian**/Pacific Islander		Native American		Other/Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<2,500 grams	1,918	6.26	5,617	5.73	1,738	12.20	1,061	7.09	22	8.40	52	12.01
Total	30,621	100.00	98,074	100.00	14,246	100.00	14,968	100.00	262	100.00	433	100.00

\* White, African American, Asian, Pacific Islander, Native American and other races exclude Hispanic ethnicity.  
Hispanic includes any race category.

\*\* Filipino is included in Asian.

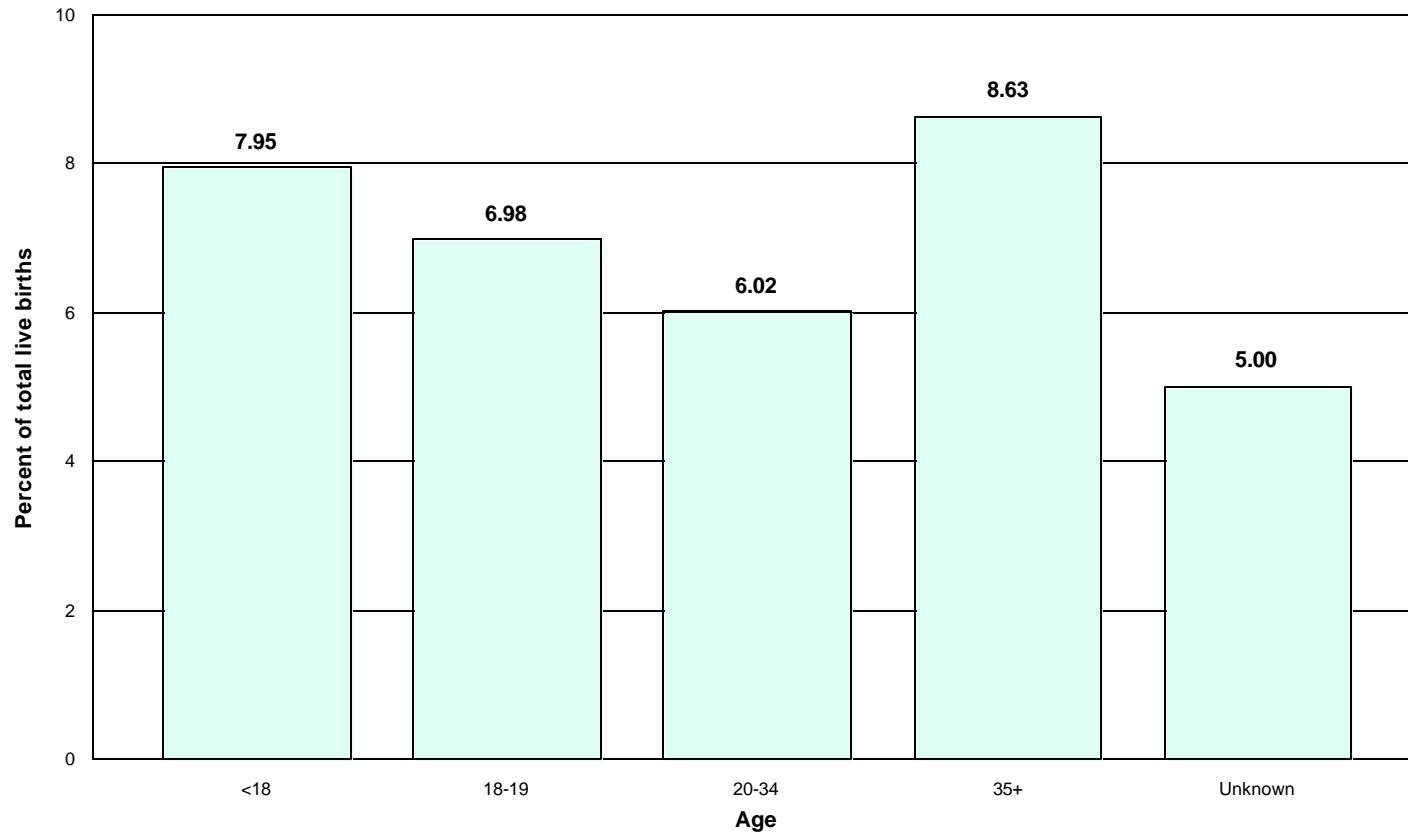
Year 2000 Objective: Reduce low birthweight to an incidence of no more than 5 percent of live births.

Note: Low birthweight is defined as weight less than 2,500 grams at birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

### Low Birthweight Live Births, as Percent of Total Live Births, by Mother's Age

Los Angeles County, 1998



	Age									
	< 18		18 - 19		20 - 34		35+		Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<2,500 grams	565	7.95	778	6.98	7,008	6.02	2,056	8.63	1	5.00
Total	7,107	100.00	11,153	100.00	116,491	100.00	23,833	100.00	20	100.00

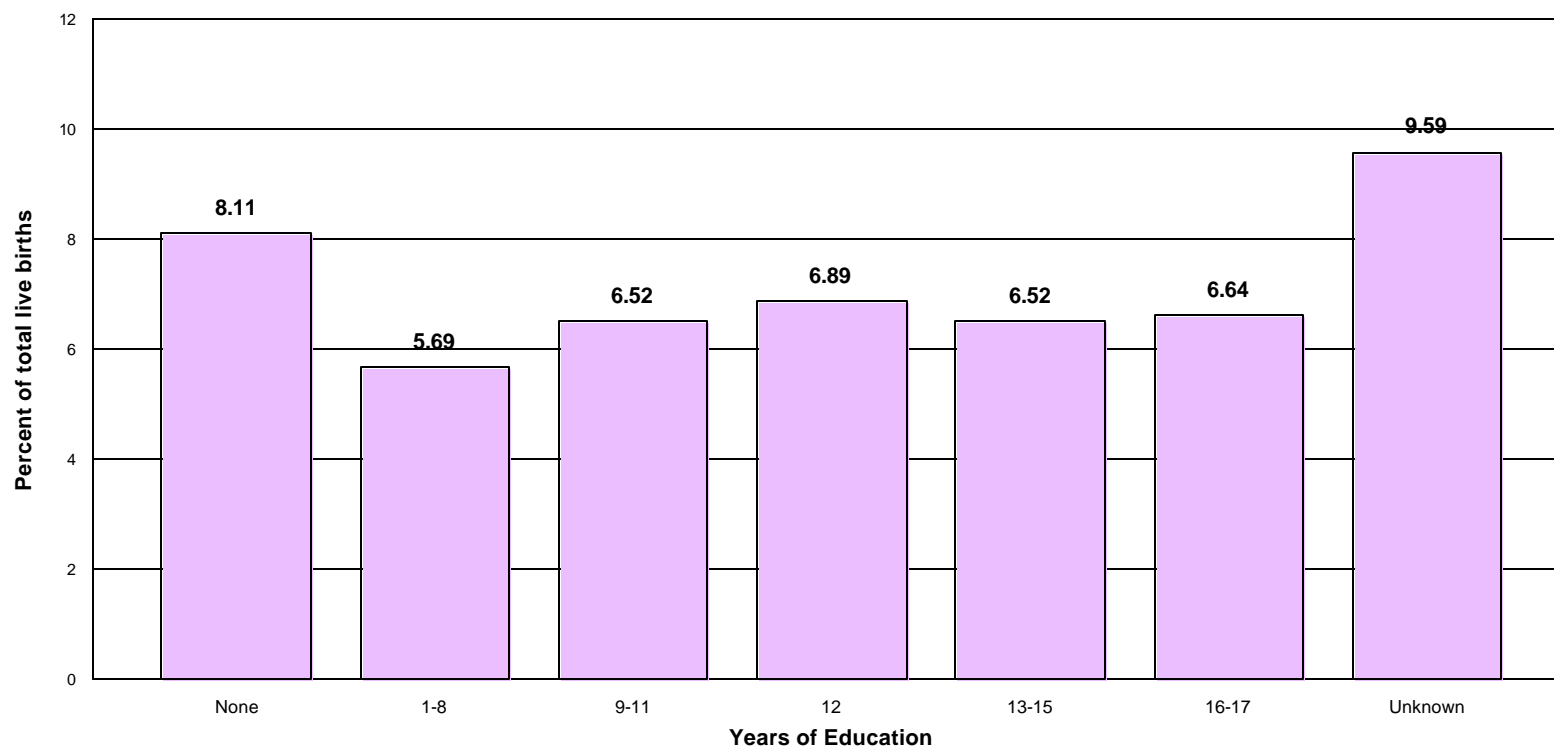
Year 2000 Objective: Reduce low birthweight to an incidence of no more than 5 percent of live births.

Note: Low birthweight is defined as weight less than 2,500 grams at birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

## Low Birthweight Live Births, as Percent of Total Live Births, by Mother's Years of Education

Los Angeles County, 1998



	Years of Education													
	None		1 - 8		9 - 11		12		13 - 15		16 - 17		Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<2,500 grams	45	8.11	1,405	5.69	2,249	6.52	3,044	6.89	1,746	6.52	1,704	6.64	215	9.59
Total	555	100.00	24,684	100.00	34,480	100.00	44,208	100.00	26,764	100.00	25,670	100.00	2,243	100.00

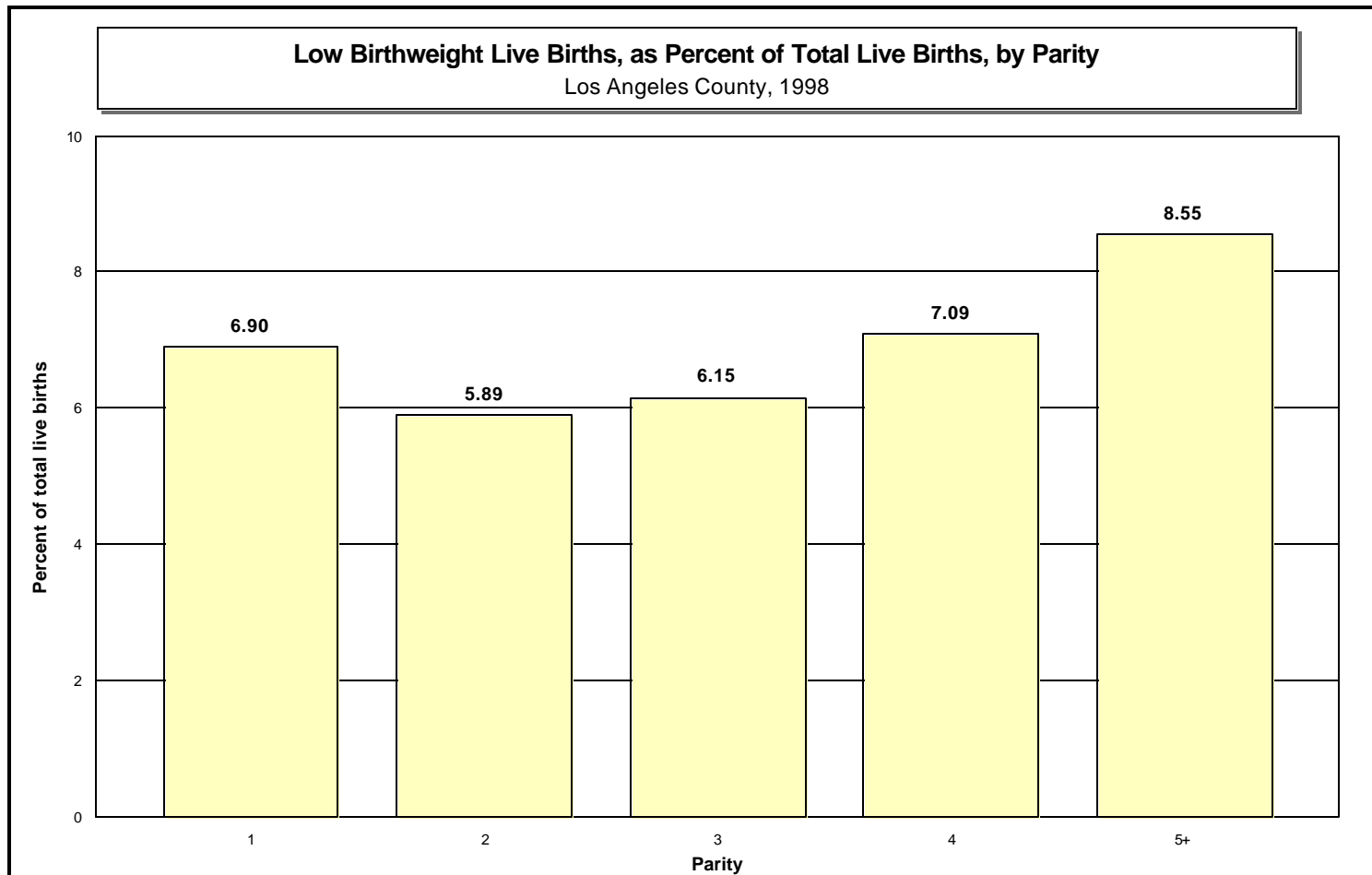
Year 2000 Objective: Reduce low birthweight to an incidence of no more than 5 percent of live births.

Note: Low birthweight is defined as weight less than 2,500 grams at birth.

Year '17' = mothers who attained college degree or above

This analysis did not adjust for teen mothers who may not be old enough to have reached higher categorical education level.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics



	Parity											
	1		2		3		4		5+		Not Stated	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<2,500 grams	4,104	6.90	2,922	5.89	1,726	6.15	871	7.09	761	8.55	24	11.06
Total	59,482	100.00	49,634	100.00	28,084	100.00	12,290	100.00	8,897	100.00	217	100.00

Year 2000 Objective: Reduce low birthweight to an incidence of no more than 5 percent of live births.

Note: Parity = number of pregnancies resulting in live births to a woman

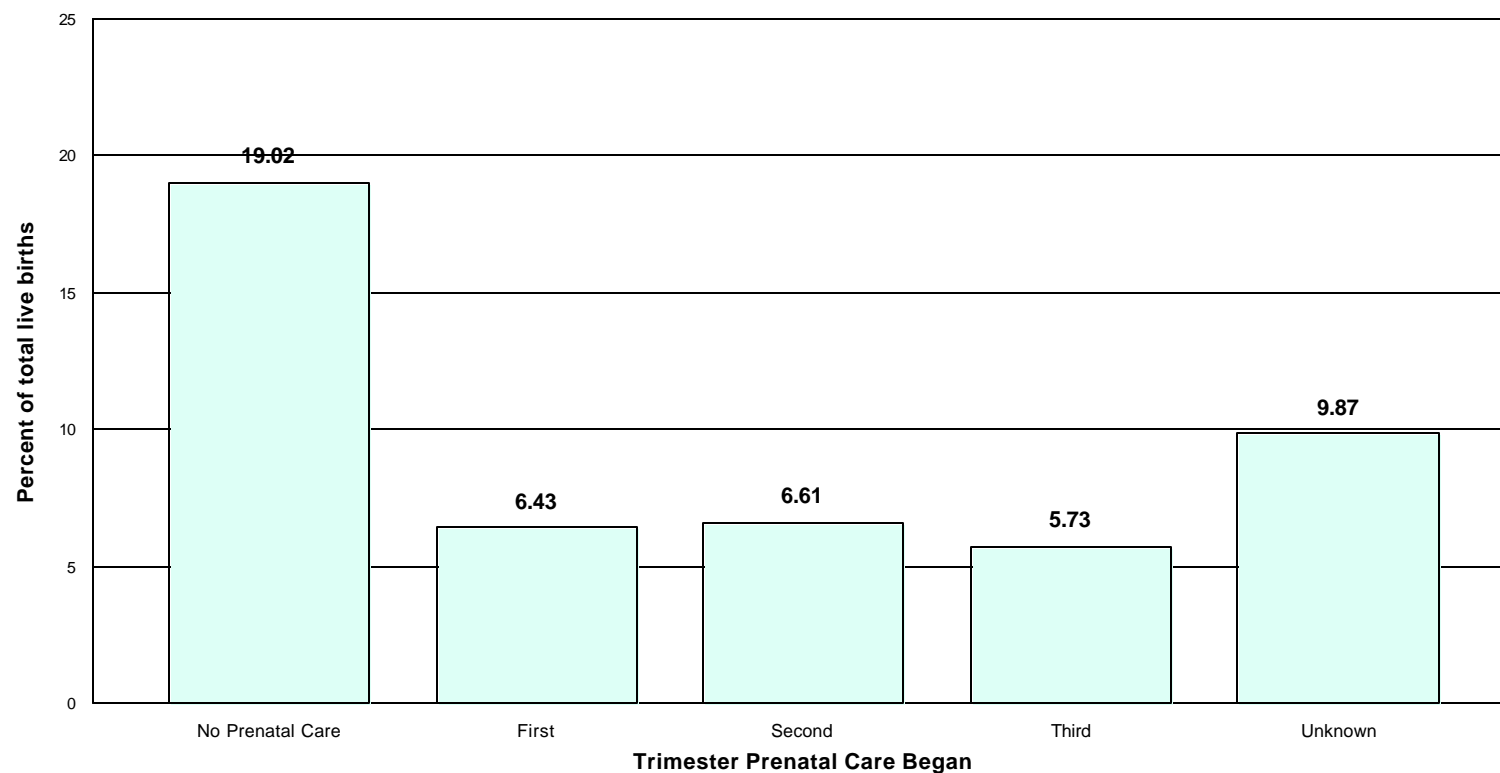
Low birthweight is defined as weight less than 2,500 grams at birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics



# **Low Birthweight Live Births, as Percent of Total Live Births, by Mother's Trimester Prenatal Care Began**

Los Angeles County, 1998



	Trimester Prenatal Care Began									
	No Prenatal Care		First		Second		Third		Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<2,500 grams	199	19.02	8,522	6.43	1,295	6.61	190	5.73	202	9.87
Total	1,046	100.00	132,607	100.00	19,590	100.00	3,315	100.00	2,046	100.00

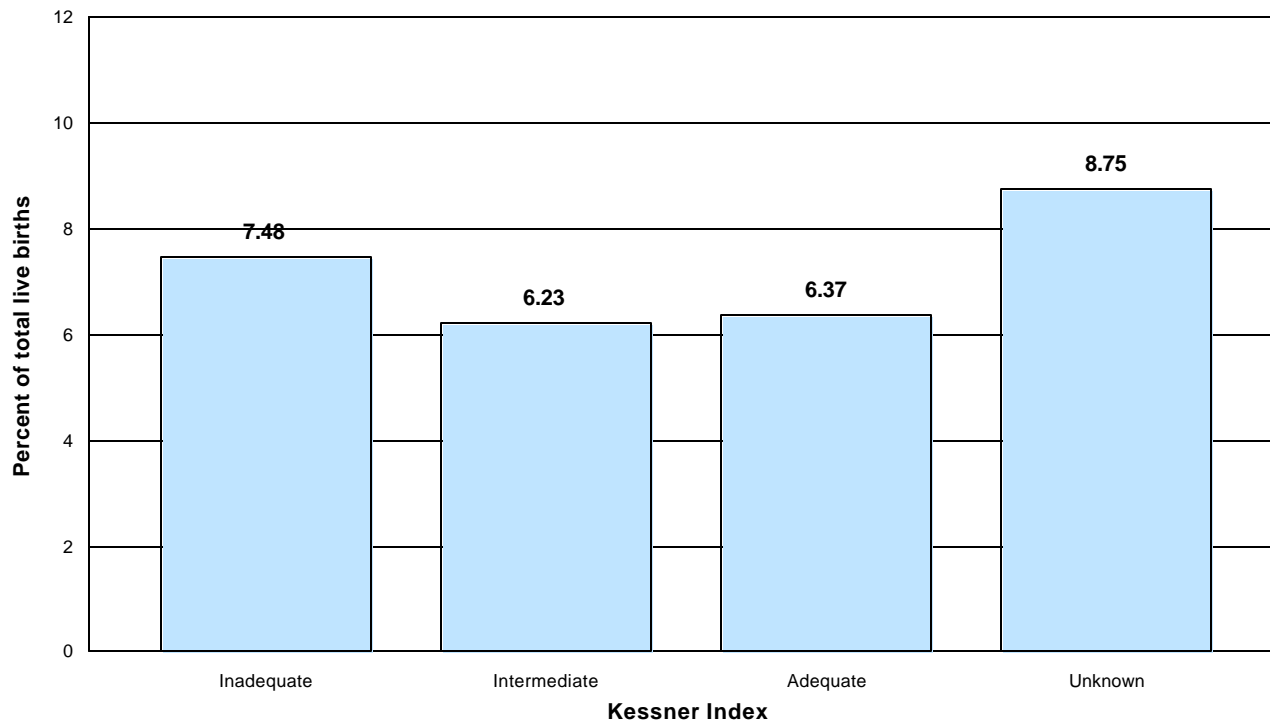
Year 2000 Objective: Reduce low birthweight to an incidence of no more than 5 percent of live births.

Low birthweight is defined as weight less than 2,500 grams at birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

### Low Birthweight Live Births, as Percent of Total Live Births, by Kessner Index

Los Angeles County, 1998



	Kessner Index							
	Inadequate		Intermediate		Adequate		Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<2,500 grams	313	7.48	1,076	6.23	7,960	6.37	1,059	8.75
Total	4,182	100.00	17,271	100.00	125,042	100.00	12,109	100.00

Year 2000 Objective: Reduce low birthweight to an incidence of no more than 5 percent of live births.

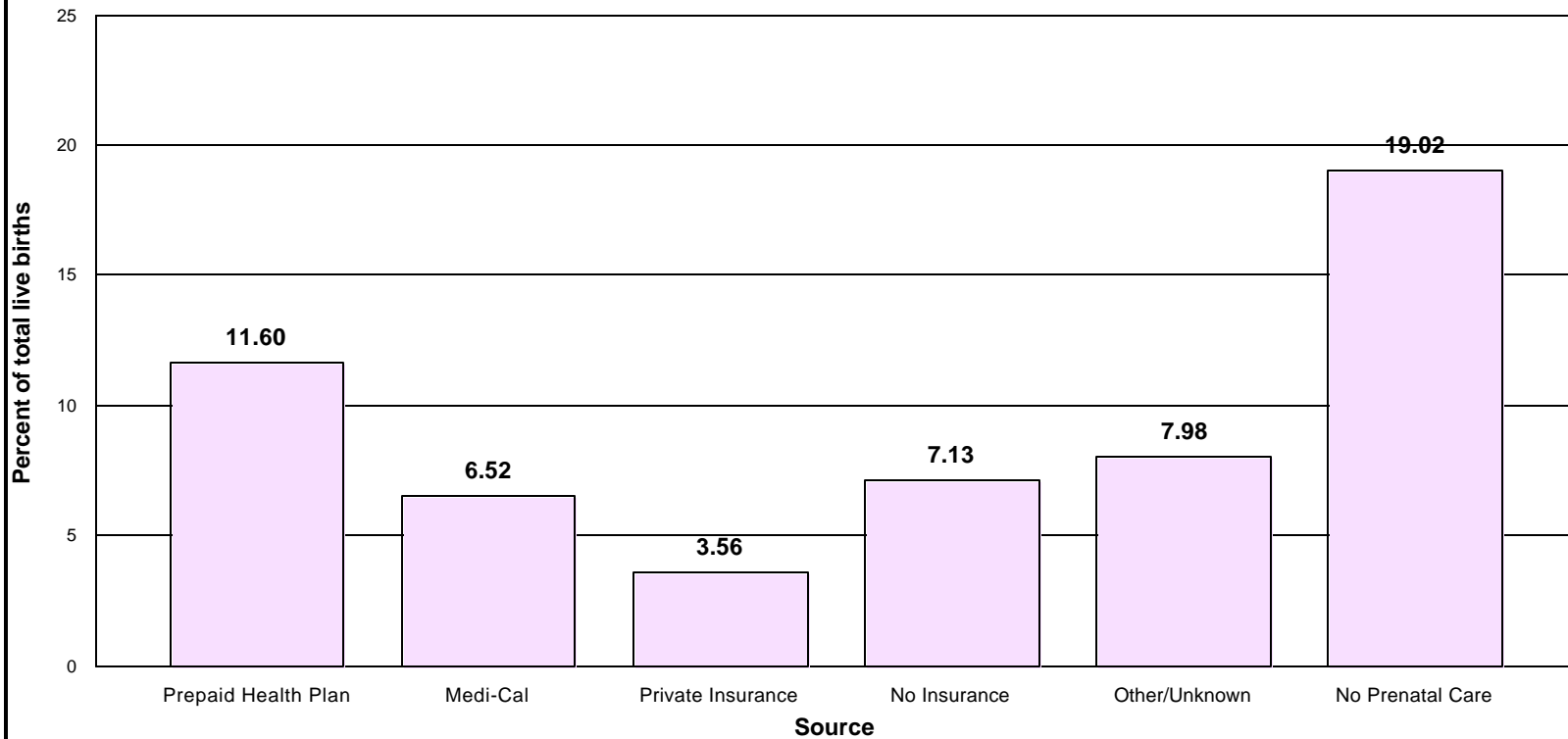
Note: Low birthweight is defined as weight less than 2,500 grams at birth.

The Kessner Index takes into account three factors: month in which prenatal care began, number of prenatal visits, and length of gestation. This measure excludes the prenatal care experiences of all women whose pregnancies did not result in a live birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

## Low Birthweight Live Births, as Percent of Total Live Births, by Payment Source for Prenatal Care

Los Angeles County, 1998



Source of Payment												
Prepaid Health Plan		Medi-Cal		Private Insurance		No Insurance		Other/Unknown		No Prenatal Care		
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<2,500 grams	3,162	11.60	4,857	6.52	1,793	3.56	306	7.13	91	7.98	199	19.02
Total	27,248	100.00	74,468	100.00	50,411	100.00	4,291	100.00	1,140	100.00	1,046	100.00

Year 2000 Objective: Reduce low birthweight to an incidence of no more than 5 percent of live births.

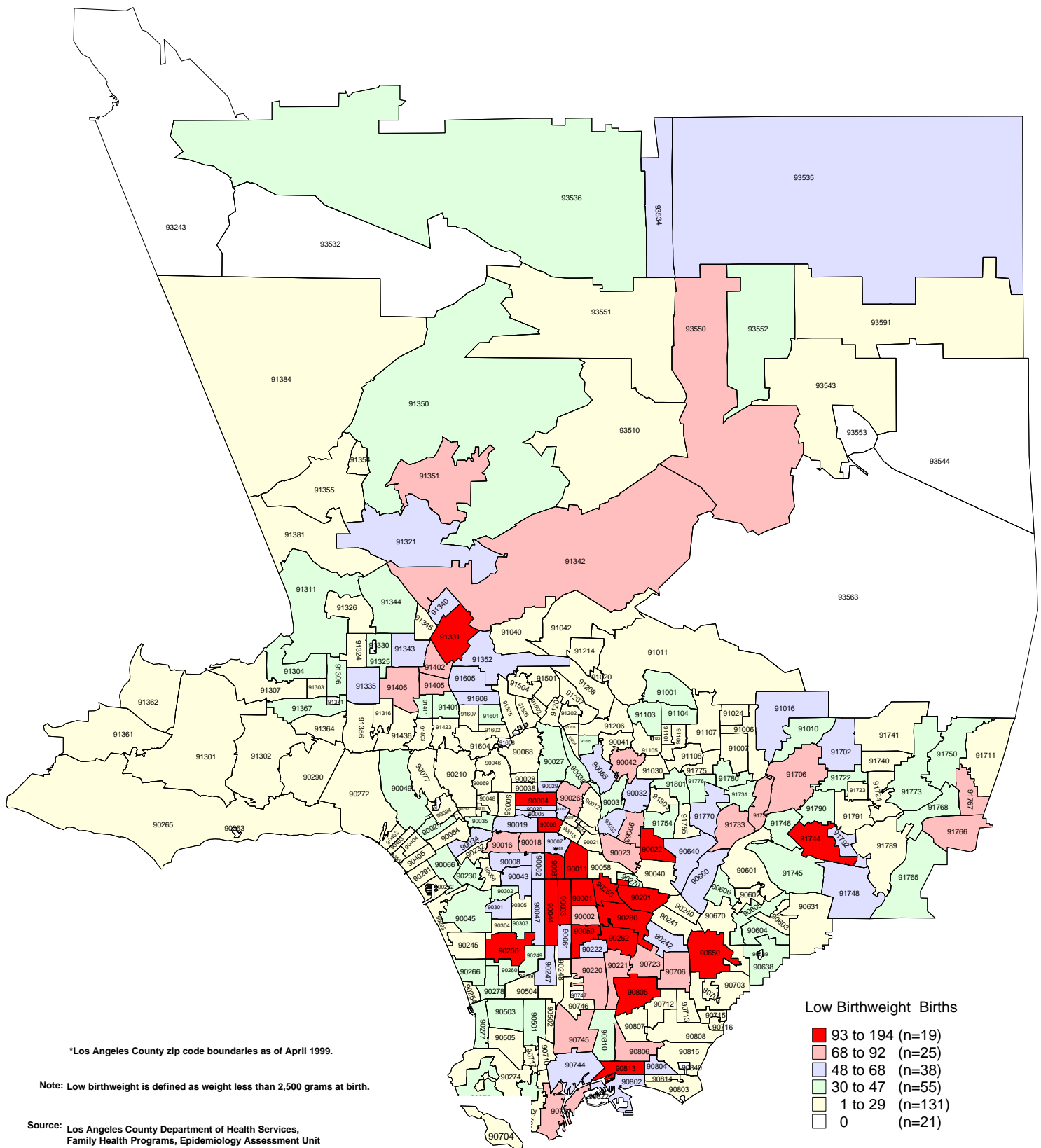
Note: Low birthweight is defined as weight less than 2,500 grams at birth

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

Los Angeles County - Department of Health Services

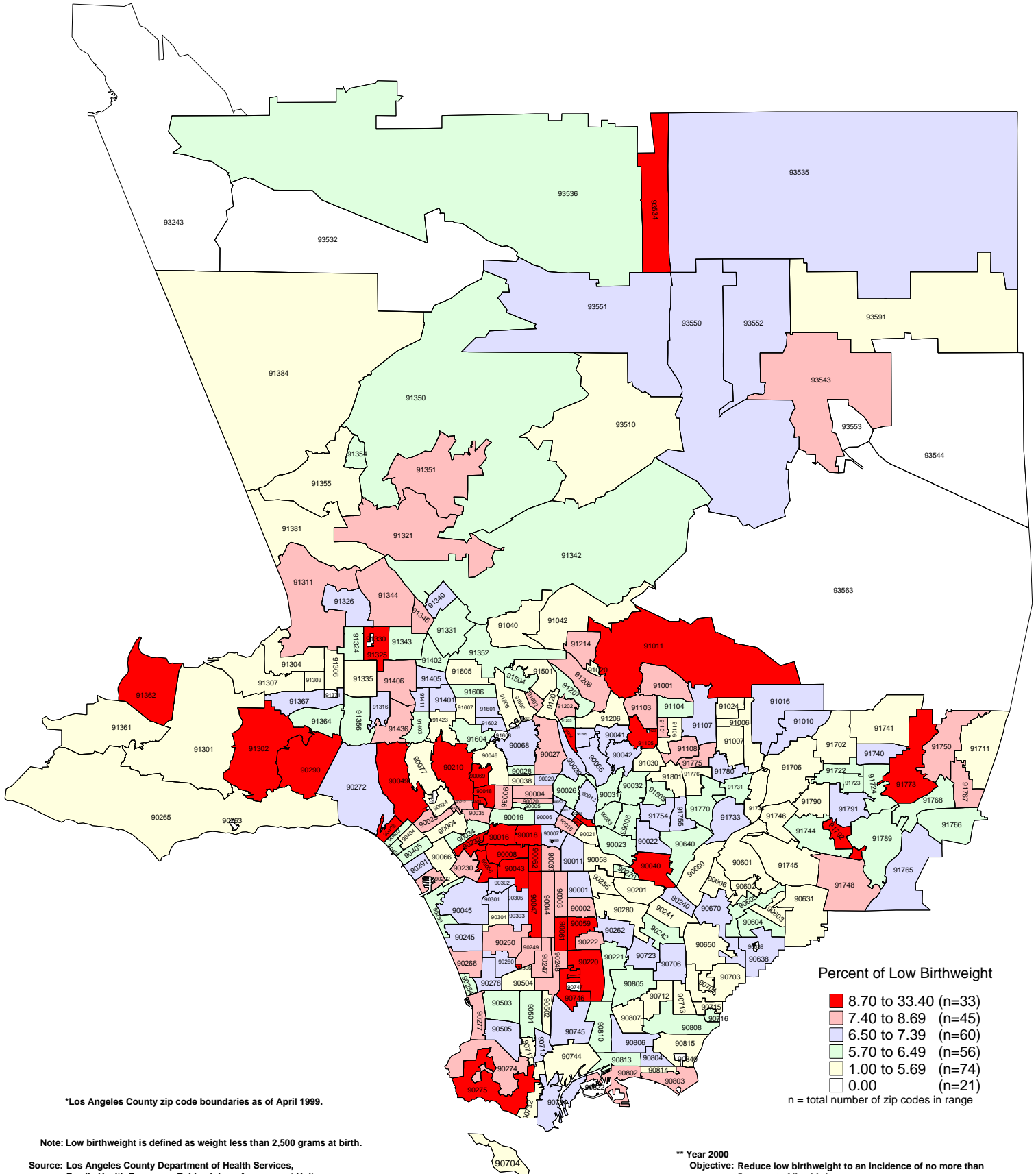
## Number of Low Birthweight (LBW) Live Births by Zip Code\*

Los Angeles County, 1998



# Percent of Low Birthweight (LBW) Live Births by Zip Code\*

Los Angeles County, 1998



## TITLE V INDICATOR TEMPLATES

**INDICATOR:** Very low birthweight

**DEFINITION:** The percent of live births weighing less than 1,500 grams

**NUMERATOR:** The number of live births weighing less than 1,500 grams, by place of residence, in a calendar year

**DENOMINATOR:** The total number of live births, by place of residence, in a calendar year

**HEALTHY PEOPLE 2000 OBJECTIVE:**

Reduce very low birthweight to an incidence of no more than 1 percent of live births. (Baseline: 1.2 percent in 1987) (Objective 14.5)

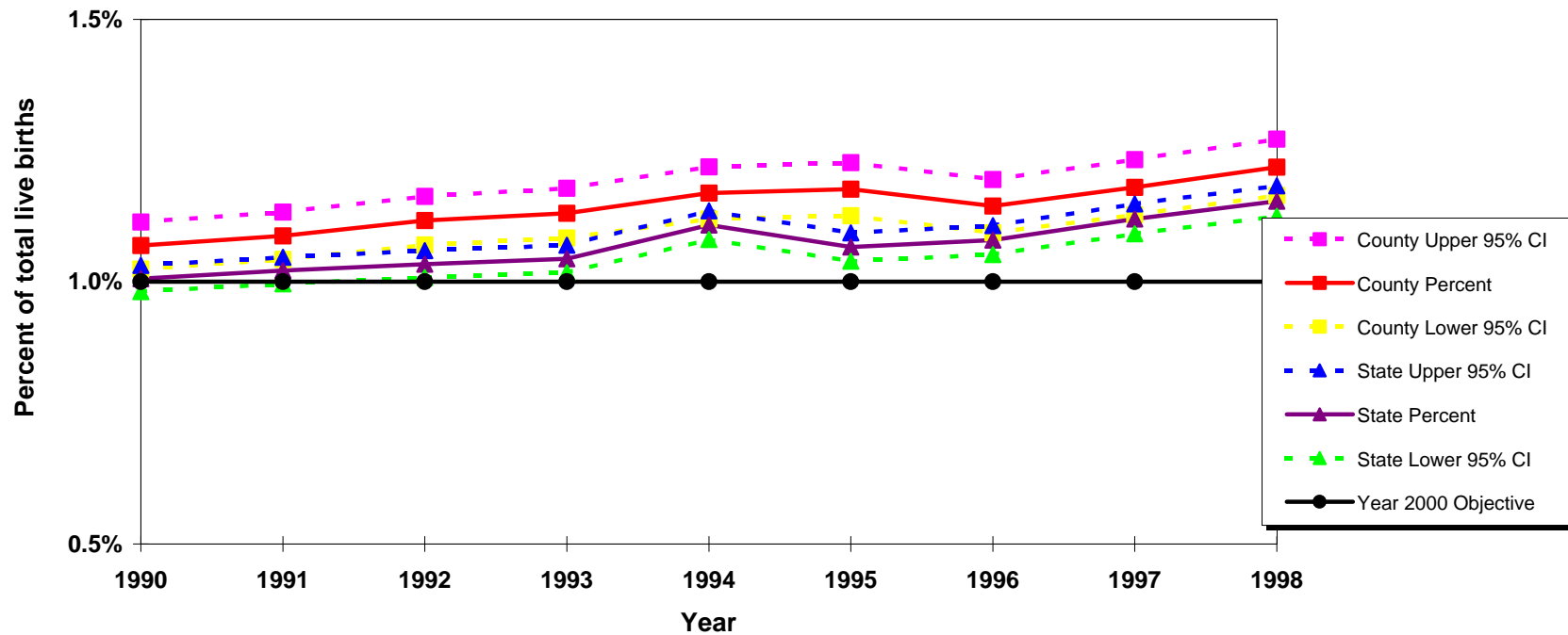
**RISK FACTORS:** Preterm birth; prior preterm birth; race/ethnicity (African American, Puerto Rican); substance use/abuse (e.g. illicit drug use)

See also risk factors for low birthweight.

	California				LA County				DENOMINATOR: Live Births		
	Very Low Birthweight		95% Confidence Interval		Very Low Birthweight		95% Confidence Interval				
Year	Number	Percent	Lower	Upper	Number	Percent	Lower	Upper		California	LA County
1990	6,152	1.01%	0.98%	1.03%	2,182	1.07%	1.02%	1.11%		611,666	204,124
1991	6,223	1.02%	1.00%	1.05%	2,205	1.09%	1.04%	1.13%		609,228	202,737
1992	6,209	1.03%	1.01%	1.06%	2,204	1.12%	1.07%	1.16%		600,838	197,415
1993	6,099	1.04%	1.02%	1.07%	2,145	1.13%	1.08%	1.18%		584,483	189,706
1994	6,282	1.11%	1.08%	1.14%	2,109	1.17%	1.12%	1.22%		567,034	180,394
1995	5,877	1.07%	1.04%	1.09%	2,057	1.18%	1.13%	1.23%		551,226	174,862
1996	5,812	1.08%	1.05%	1.11%	1,933	1.14%	1.09%	1.19%		538,628	168,973
1997	5,869	1.12%	1.09%	1.15%	1,912	1.18%	1.13%	1.23%	524,174	162,036	
1998	6,013	1.15%	1.12%	1.18%	1,932	1.22%	1.16%	1.27%	521,265	158,604	

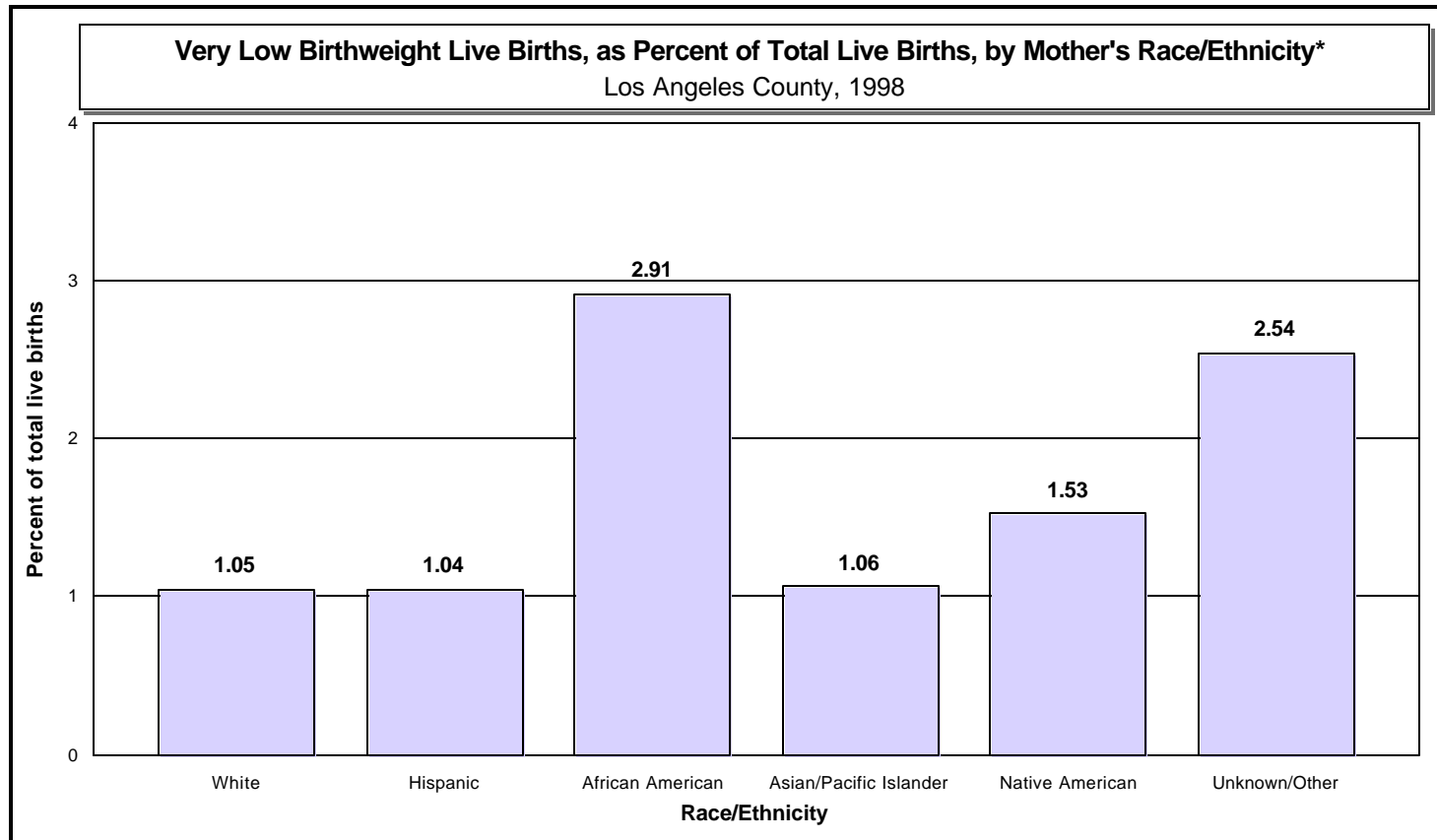
**Source:** 1990-1998 birth records from California Department of Health Services, Center for Health Statistics

## Percent Very Low Birthweight California vs. Los Angeles County, 1990 - 1998



**Year 2000 Objective:** Reduce very low birthweight to an incidence of no more than 1 percent of live births

**Source:** 1990-1998 birth records from California Department of Health Services, Center for Health Statistics



Race/Ethnicity												
White		Hispanic		African American		Asian**/Pacific Islander		Native American		Unknown/Other		
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<1,500 grams	320	1.05	1,023	1.04	415	2.91	159	1.06	4	1.53	11	2.54
Total	30,621	100.00	98,074	100.00	14,246	100.00	14,968	100.00	262	100.00	433	100.00

\* White, African American, Asian, Pacific Islander, Native American and other races exclude Hispanic ethnicity

Hispanic includes any race category

\*\* Filipino is included in Asian

Year 2000 Objective: Reduce very low birthweight to an incidence of no more than 1 percent of live births.

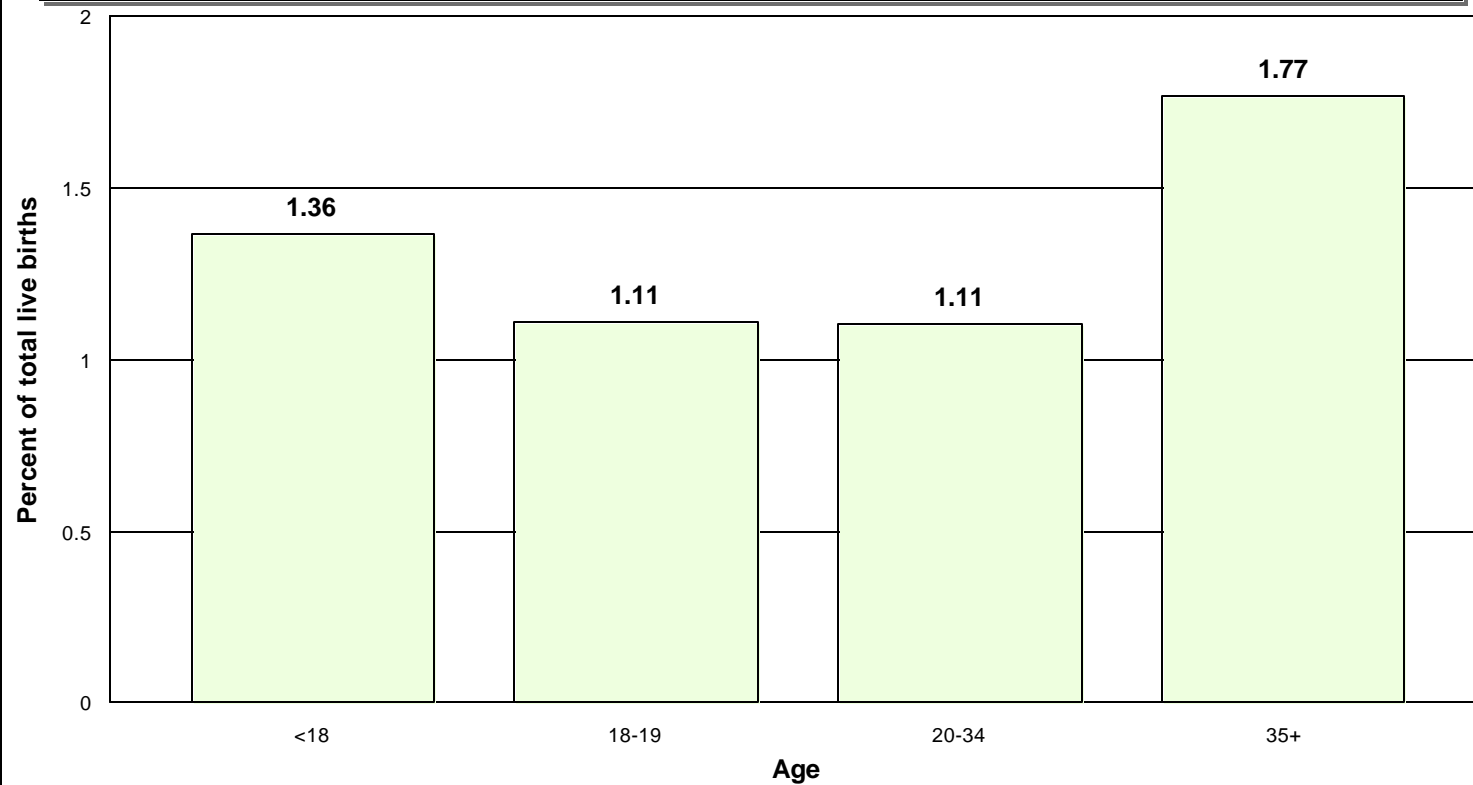
Note: Very low birthweight is defined as weight less than 1,500 grams at birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics



### Very Low Birthweight Live Births, as Percent of Total Live Births, by Mother's Age

Los Angeles County, 1998



	Age									
	<18		18-19		20-34		35+		Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<1,500 grams	97	1.36	124	1.11	1,290	1.11	421	1.77	0	0.00
Total	7,107	100.00	11,153	100.00	116,491	100.00	23,833	100.00	20	100.00

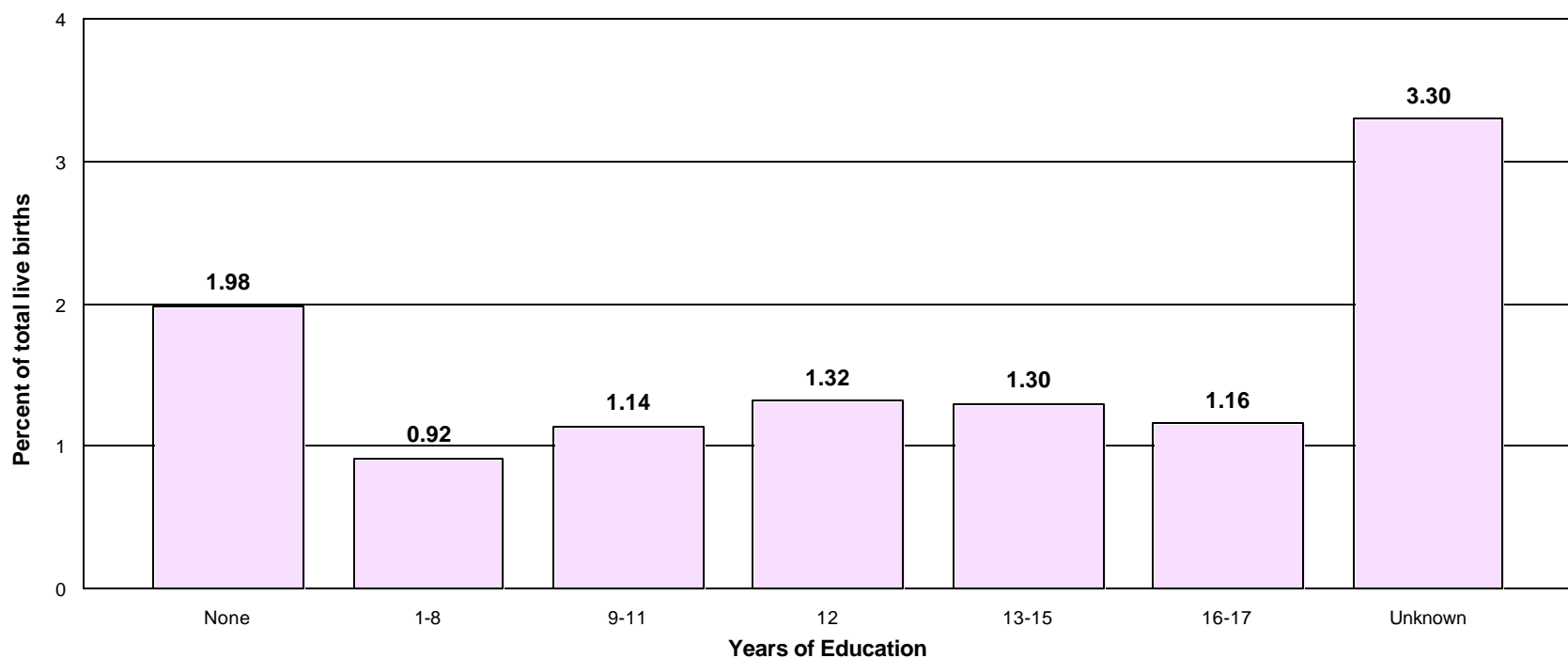
Year 2000 Objective: Reduce very low birthweight to an incidence of no more than 1 percent of live births.

Note: Very low birthweight is defined as weight less than 1,500 grams at birth.

Source: 1998 birth record from the California Department of Health Services, Center for Health Statistics

## Very Low Birthweight Live Births, as Percent of Total Live Births, by Mother's Years of Education

Los Angeles County, 1998



	Years of Education													
	None		1-8		9-11		12		13-15		16-17		Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<1,500 grams	11	1.98	226	0.92	393	1.14	582	1.32	348	1.30	298	1.16	74	3.30
Total	555	100.00	24,684	100.00	34,480	100.00	44,208	100.00	26,764	100.00	25,670	100.00	2,243	100.00

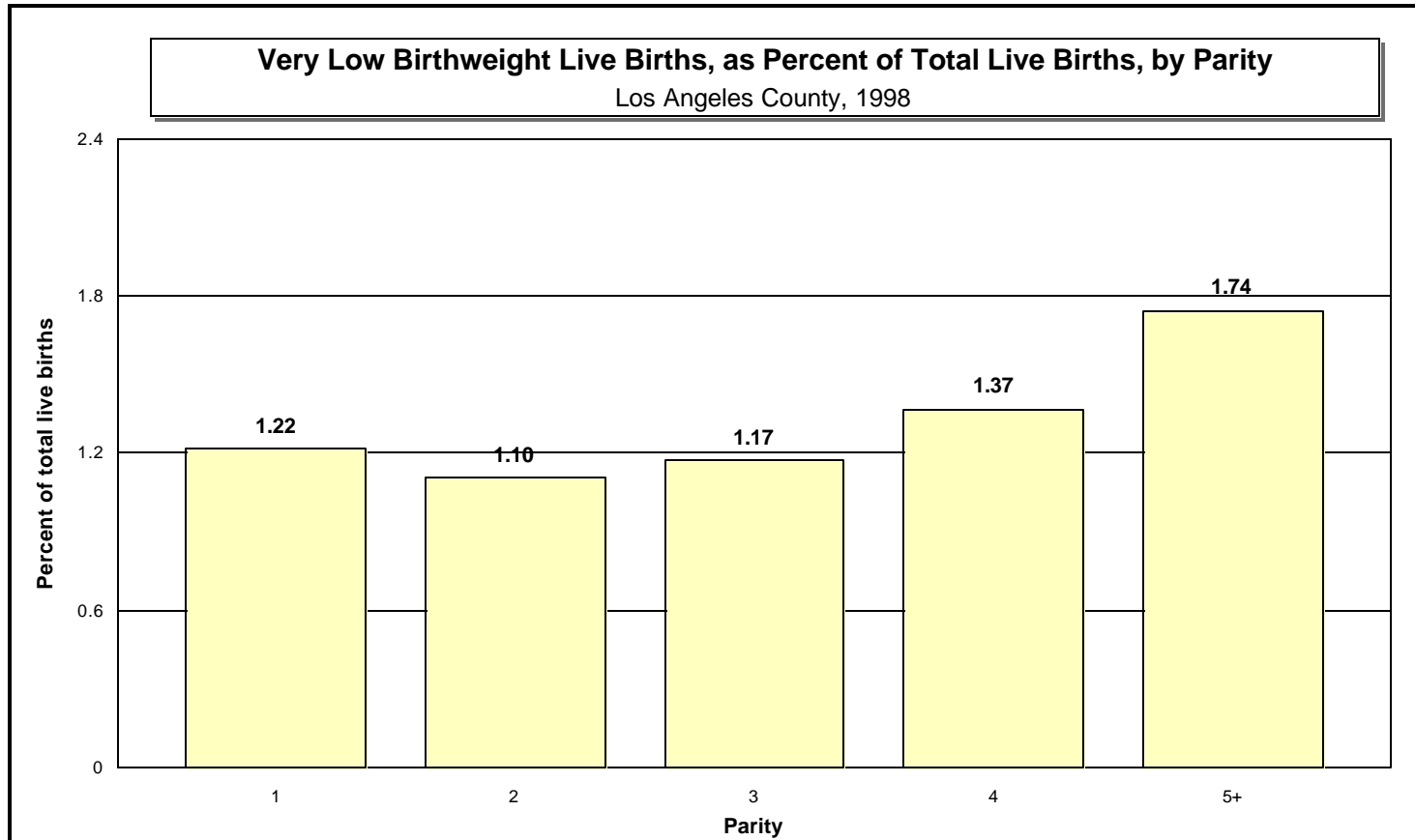
Year 2000 Objective: Reduce very low birthweight to an incidence of no more than 1 percent of live births.

Note: Very low birthweight is defined as weight less than 1,500 grams at birth.

Year '17' = mothers who attained college degree or above

This analysis did not adjust for teen mothers who may not be old enough to have reached higher categorical education level.

Source: 1998 birth record from the California Department of Health Services, Center for Health Statistics



	Parity											
	1		2		3		4		5+		Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<1,500 grams	723	1.22	548	1.10	329	1.17	168	1.37	155	1.74	9	4.15
Total	59,482	100.00	49,634	100.00	28,084	100.00	12,290	100.00	8,897	100.00	217	100.00

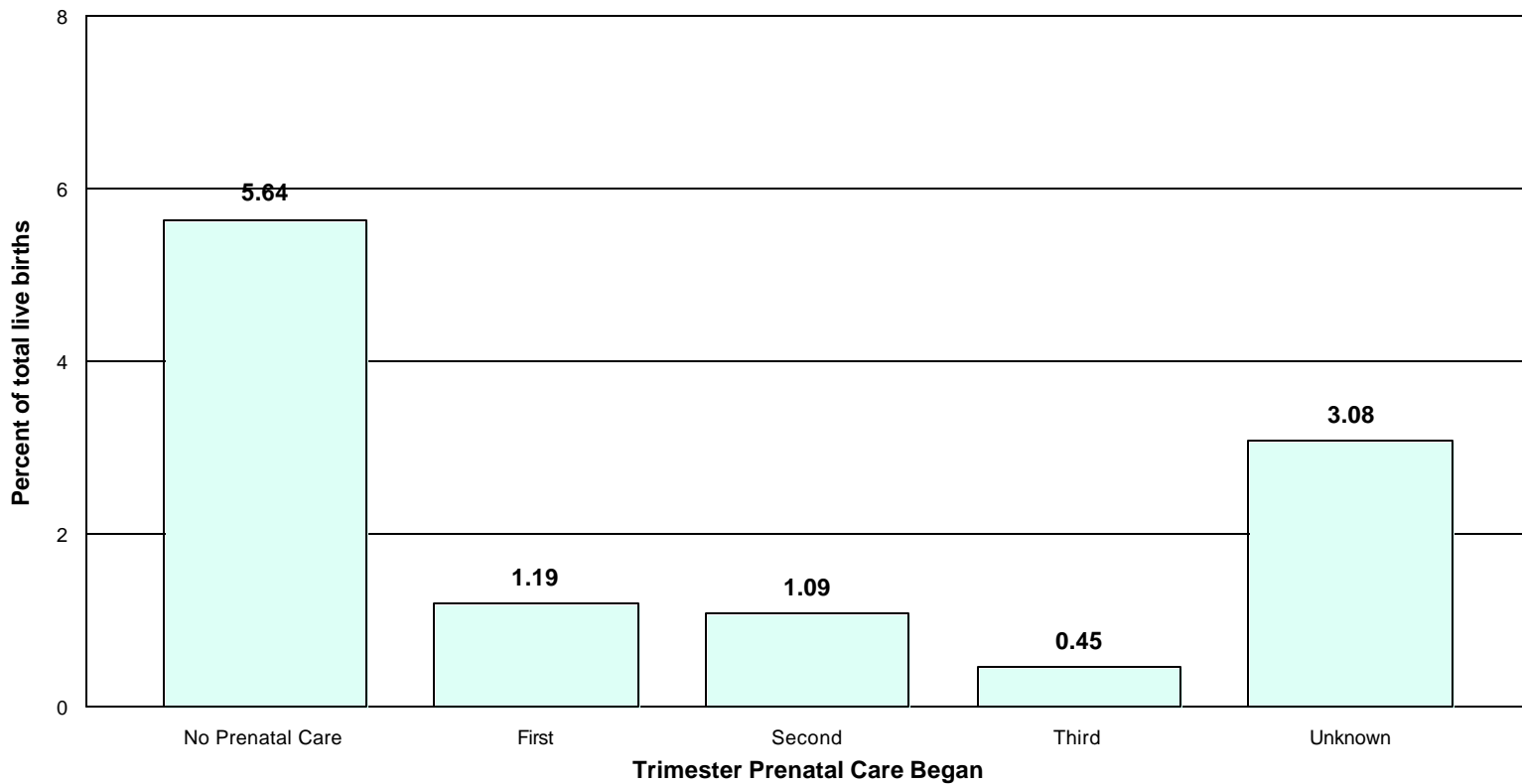
Year 2000 Objective: Reduce very low birthweight to an incidence of no more than 1 percent of live births.

Note: Parity = number of pregnancies resulting in live births to a woman

Very low birthweight is defined as weight less than 1,500 grams at birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

**Very Low Birthweight Live Births, as Percent of Total Live Births, by Mother's Trimester Prenatal Care Began**  
Los Angeles County, 1998



Trimester Prenatal Care Began										
Live Births	No Prenatal Care		First		Second		Third		Unknown	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<1,500 grams	59	5.64	1,582	1.19	213	1.09	15	0.45	63	3.08
Total	1,046	100.00	132,607	100.00	19,590	100.00	3,315	100.00	2,046	100.00

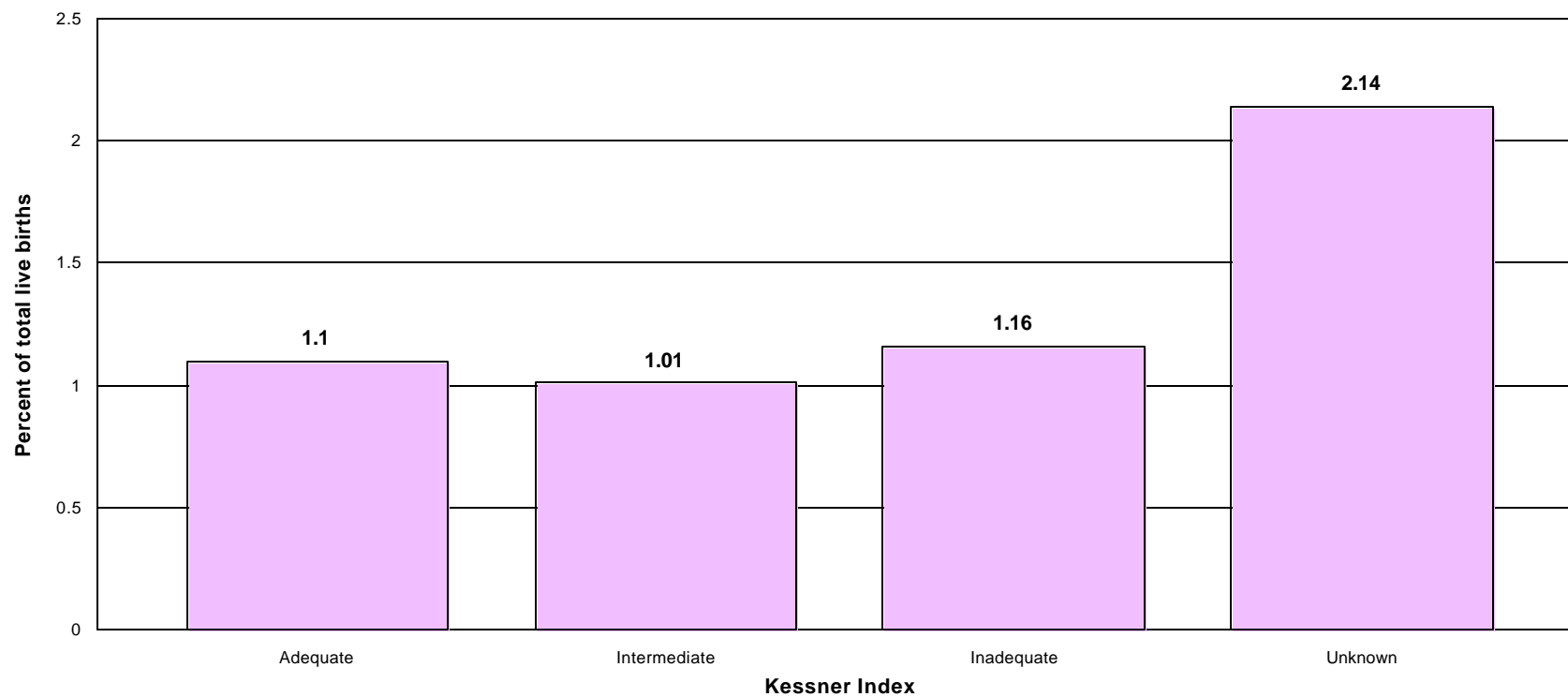
Year 2000 Objective: Reduce very low birthweight to an incidence of no more than 1 percent of live births.

Note: Very low birthweight is defined as weight less than 1,500 grams at birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

### Very Low Birthweight Live Births, as Percent of Total Live Births, by Kessner Index

Los Angeles County, 1998



		Kessner Index							
		Inadequate		Intermediate		Adequate		Unknown	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
<1,500 grams	46	1.10	175	1.01	1,452	1.16	259	2.14	
Total	4,182	100.00	17,271	100.00	125,042	100.00	12,109	100.00	

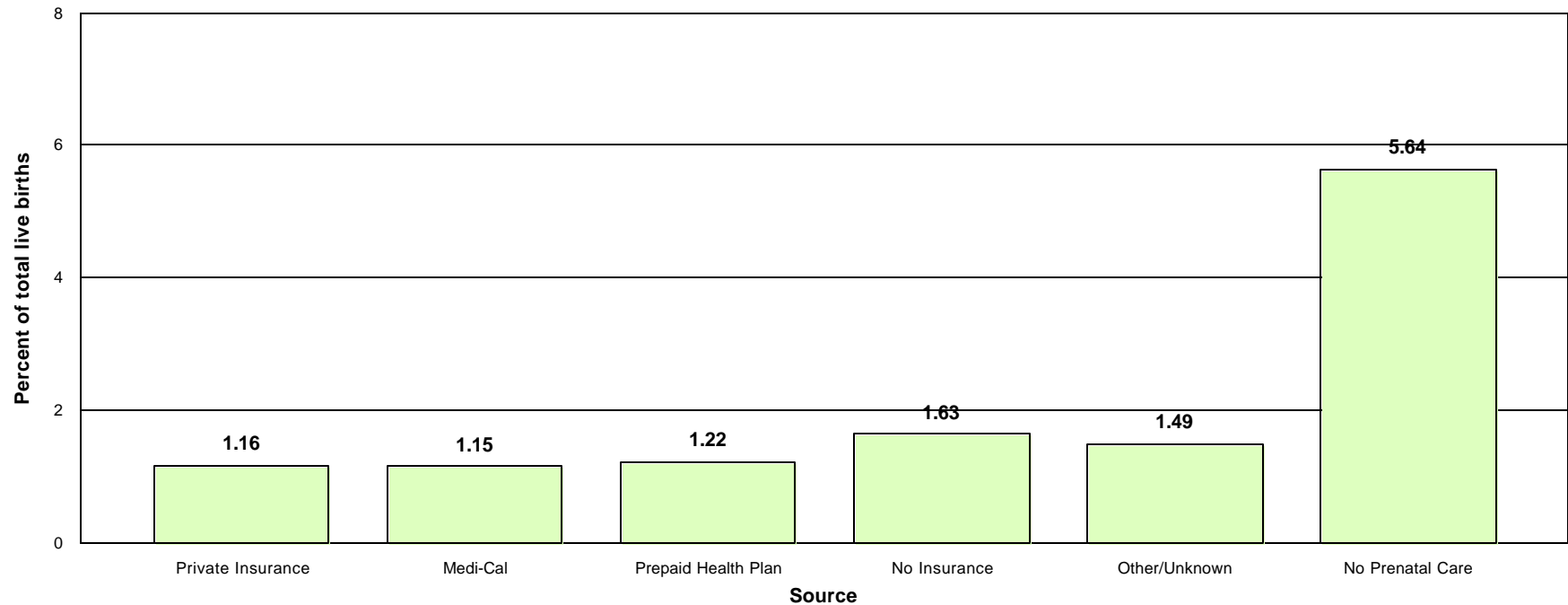
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The Kessner Index takes into account three factors: month in which prenatal care began, number of prenatal visits, and length of gestation. This measure excludes the prenatal care experiences of all women whose pregnancies did not result in a live birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

**Very Low Birthweight Live Births, as Percent of Total Live Births, by Payment Source for Prenatal Care**  
Los Angeles County, 1998



	Source of Payment											
	Private Insurance		Medi-Cal		Prepaid Health Plan		No Insurance		Other/Unknown		No Prenatal Care	
Live Births	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
<1,500 grams	317	1.16	853	1.15	616	1.22	70	1.63	17	1.49	59	5.64
Total	27,248	100.00	74,468	100.00	50,411	100.00	4,291	100.00	1,140	100.00	1,046	100.00

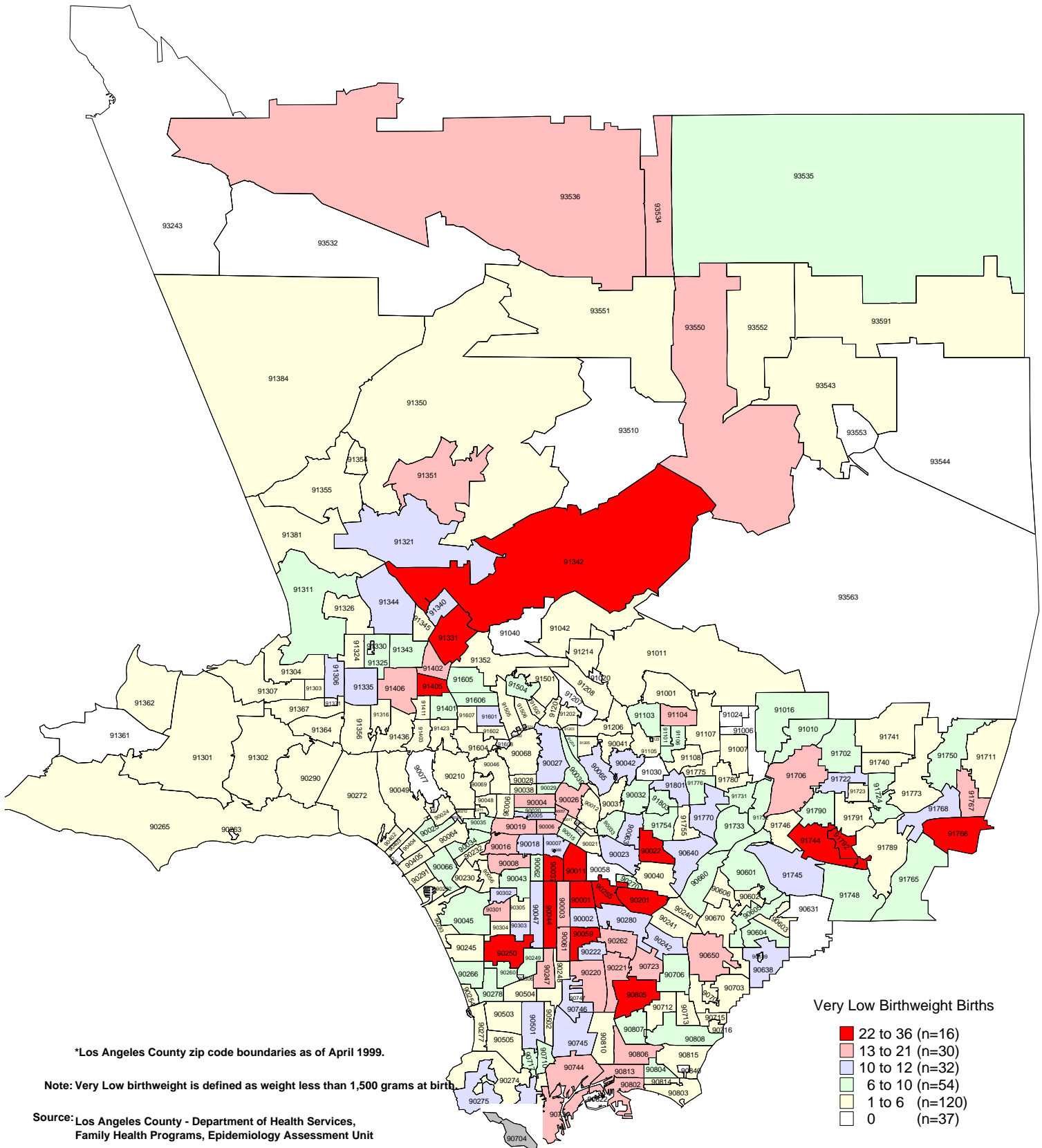
Year 2000 Objective: Reduce very low birthweight to an incidence of no more than 1 percent of live births.

Note: Very low birthweight is defined as weight less than 1,500 grams at birth.

Source: 1998 birth records from the California Department of Health Services, Center for Health Statistics

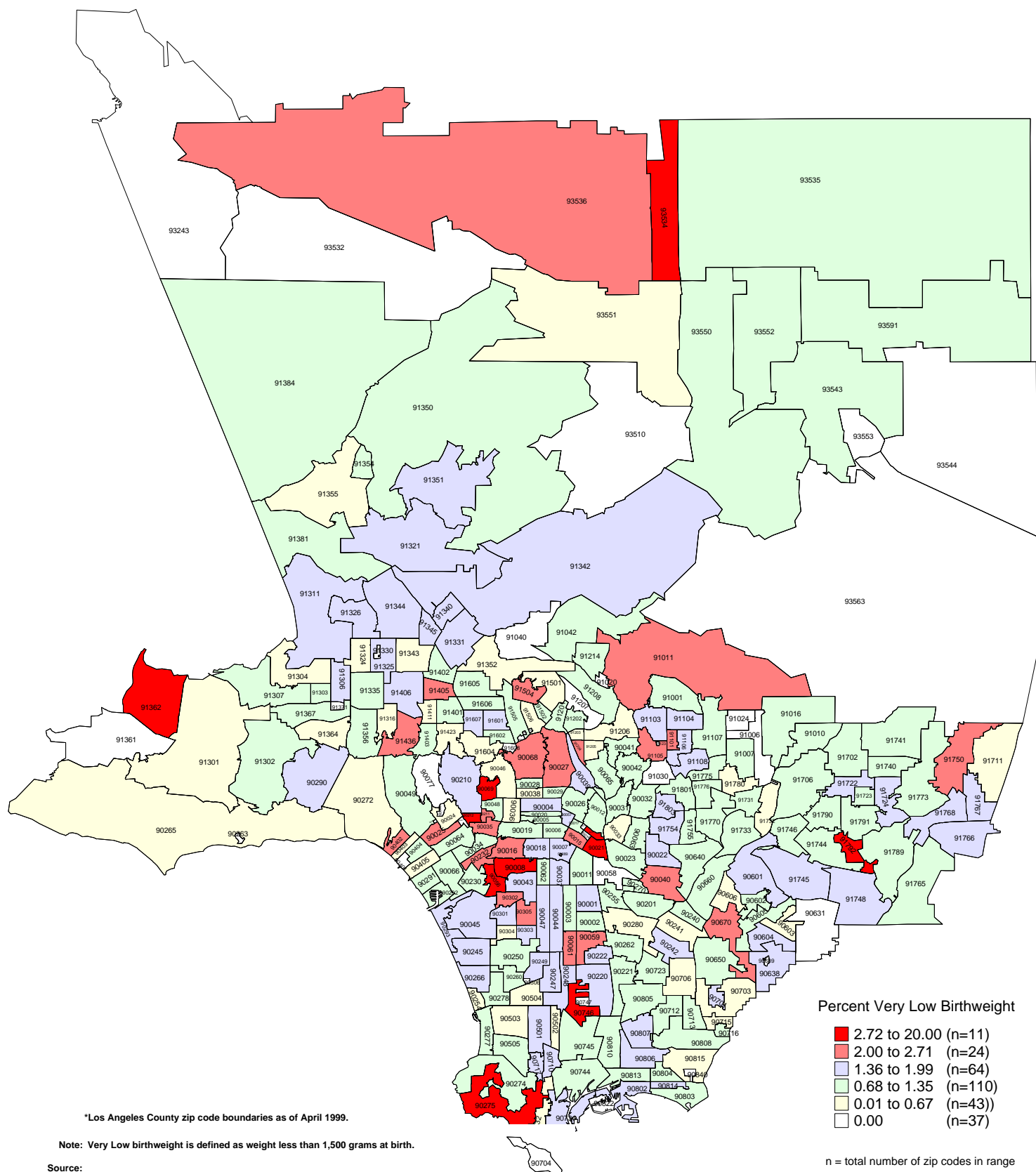
# Number of Very Low Birthweight (VLBW) Live Births by Zip Code\*

Los Angeles County, 1998



# Percent Very Low BirthWeight (VLBW) Live Births by Zip Code\*

Los Angeles County, 1998



\*Los Angeles County zip code boundaries as of April 1999.

Note: Very Low birthweight is defined as weight less than 1,500 grams at birth.

Source:

Los Angeles County Department of Health Services,  
Family Health Programs, Epidemiology Assessment Unit

Based on 1998 birth records from California Department of Health Services,  
Center for Health Statistics

\*\*Year 2000

Objective: Reduce very low birthweight to an incidence of  
no more than 1 percent of live births.